



National Weather Service

Storm Data and Unusual Weather Phenomena



January 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

WIZ052-059>060

Sheboygan - Washington - Ozaukee

09	0600CST	0	0	Heavy Snow
10	0600CST			

Low pressure moving northeast through Illinois and Indiana produced a prolonged period of snow over a part of eastcentral and southeast Wisconsin. The system's snow was enhanced by moisture input from Lake Michigan due to a northeast flow of air in the lower atmosphere. Newburg (Washington co.) picked up 8.2 inches, while both Sheboygan (Sheboygan co.) and Port Washington gathered 8 inches. Otherwise 4 to 7 inches fell east of a line from Green Bay to Janesville. Interstate-43 in Sheboygan county was closed for 1.5 hours in the morning due to the intense snowfall at that time. Many vehicles ended up in roadside ditches and there were many accidents. There were 10 indirectly-related deaths due to the accidents. The 6.5 inches at Milwaukee was the first substantial snowfall of the season.

WIZ071

Racine

15	0000CST	0	0	Heavy Snow
	2359CST			

Two upper-level weather disturbances swept across southeast Wisconsin and produced two separate periods of snow. Eventually 8 inches was recorded in the city of Racine. There was no snowfall in the 3 hour period of 1200-1500 CST. Outside of Racine county snow amounts of 4 to 7 inches were noted southeast of a line from Janesville to Sheboygan

WIZ052-058>060-
063>066-069>072

Sheboygan - Dodge - Washington - Ozaukee - Dane - Jefferson - Waukesha - Milwaukee - Rock - Walworth - Racine - Kenosha

16	0200CST	0	0	Other
	1700CST			

Frequent ground blizzard conditions affected the rural areas of southcentral and southeast Wisconsin as bitter cold air poured into this area on northwest winds gusting to 40 mph. Whiteout conditions, due to blowing snow, stopped traffic on I-94 in Kenosha county before daybreak. Traffic was also brought to a standstill in rural points of Racine county during the late afternoon hours. Elsewhere, whiteout conditions slowed or stopped traffic at times. Temperatures plunged from 22 degrees in Milwaukee at 1am to only 4 above by the noon hour. Madison dropped to 2 above by noon. Wind chills fell to 25 below to 40 below. Many rural schools were closed.

WIZ046>047-051>052-
056>060-062>072

Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee - Iowa - Dane - Jefferson - Waukesha - Milwaukee - Lafayette - Green - Rock - Walworth - Racine - Kenosha

17	0000CST	0	3	20K	Extreme Cold
	2359CST				

The coldest arctic air of the winter season enveloped southeast and southcentral Wisconsin, resulting in many school closings and cancellation of evening activities. There were 3 frostbite injury cases reported in Milwaukee county. Maximum temperatures only reached zero at Madison and 5 above at Milwaukee, roughly 20 degrees below normal. Morning lows in the 7 below to 14 below range, coupled with northwest winds of 10 to 20 mph, generated wind chills of 30 below to 50 below zero. A water pipe froze in a Watertown (Dodge county) church. The resulting flooding damaged the building's 2nd and 3rd floors. Electrical lines in the cities of North Fond du Lac (Fond du Lac county), and Sheboygan (Sheboygan county) contracted and snapped due to the extreme cold air. About 2000 customers were without power for about 1 hour.



National Weather Service

Storm Data and Unusual Weather Phenomena



February 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

WIZ047-051-056>057-062>063-067 **Green Lake - Fond Du Lac - Sauk - Columbia - Iowa - Dane - Lafayette**

04	0300CST				0	0			Heavy Snow
	1500CST								

Heavy wet snow fell in a swath from southwest to northeast Wisconsin, but also affected parts of some southcentral counties. Eight inches accumulated in western Marquette county, Wisconsin Dells (Columbia county), Baraboo (Sauk county), and extreme northwest Iowa county. Six inches fell in Ripon (Fond du Lac county), Green Lake (Green Lake county), northwest Dane county, and in Belmont (Lafayette county). Numerous vehicle accidents were reported, which resulted in several indirectly-related injuries and one indirectly related fatality. Many schools closed for the day.

WIZ058-064-068>069 **Dodge - Jefferson - Green - Rock**

04	0300CST				0	0			Ice Storm
	0700CST								

On the southeast edge of the heavy snow swath, freezing rain fell for several hours and accumulated to 1/4 inch. Roads and sidewalks became sheets of ice, especially in rural areas. Numerous vehicle accidents resulted in several indirectly-related injuries. After the freezing rain changed to snow, accumulations totaled 1.5 to 3 inches, forcing many rural school closings.

WIZ067

Lafayette

18	1800CST				0	0	5K	10K	Flood
23	0600CST								

Flooding occurred along the Pecatonica River in and near Darlington (Lafayette county) due to the combination of 1 inch rains, rapidly melting snow, and a nearly frozen ground. Ice action and minor ice jamming complicated and enhanced the flooding in some spots. Numerous roads south of Darlington were covered with water, as well as a few north of the city. Other roads were closed due to local flooding, such as County C in the northwest part of the county, County H in the northeast, Wisconsin 176 in the southeast, and County K near Gratiot. Some farm soil erosion (\$10,000) and road shoulder washouts (\$5000) occurred.

The Pecatonica River at Darlington rose above its flood stage of 11 feet at 2215 CST on the 18th, crested at 14.69 feet at 2145 CST on the 21st, and went below flood stage at 0515 CST on the 23rd. The crest was a 2 to 5 year flood, and overall flooding was "moderate."

WIZ068

Green

18	2000CST				0	0	10K	10K	Flood
28	2359CST								

Flooding took place along the Pecatonica River in and near Martintown (Green county) due to the combination of .50 to 1.00 inch of rain, rapidly melting snow, and a nearly frozen ground. Ice action and minor ice jamming complicated and enhanced some of the flooding. The Honey Creek in Monroe flooded a local road, County EE near Monticello was covered with water, and water covered many roads near the Sugar Creek and its tributaries. Some of the roads near Sugar River were closed for several days. Several roads suffered minor shoulder washouts (\$10,000) due to swollen creeks and culverts, and there was some farm soil erosion (\$10,000).

At Martintown, the Pecatonica River rose above its flood stage of 11 feet at 2030 CST on the 18th, crested at 19.09 feet at 2300 on the 23rd, and remained above flood stage into March. This crest was a 10 year flood, and the flooding was rated as "moderate to severe."

At Brodhead, the Sugar River rose above its flood stage of 5 feet at 2100 CST on the 20th, crested at 8.45 feet at 1900 CST on the 21st, and fell below flood stage at 2200 CST on the 24th.



National Weather Service

Storm Data and Unusual Weather Phenomena



February 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WISCONSIN, Southeast

WIZ069

Rock

20	2000CST	0	0	5K	Flood
24	0400CST				

Overnight rains of .75 to 1.5 inches across Rock county into the 21st, coupled with rapid snow melt and a nearly frozen ground, resulted in widespread flooding of lowlands in the county. The Sugar River in the southwest corner flooded over or closed roads in that area, halting traffic west of Avon. East of Janesville in the Greenbelt area, some roads were covered with up to 3 feet of water at the time of highest water levels. Rising water at one point threatened to spill over Highway 14 east of Janesville. High water was reported on roads near Orfordville, Brodhead, and Avalon. Elsewhere, Turtle Creek overflowed its banks in several spots and flooded local roads. Beloit also had several road closures due to high water levels. Overall, at least 36 road locations in the county had water over them, or were closed for stretches of time. Some minor farm soil erosion was noted (\$5,000).

WIZ047-051-056>057-062>063

Green Lake - Fond Du Lac - Sauk - Columbia - Iowa - Dane

21	0000CST	0	0	Heavy Snow
	1200CST			

A narrow band of heavy snow fell from west of Madison to west of Fond du Lac. Twelve inches were measured at Blue Mounds State Park (1716 feet msl, Iowa county), 8 to 12 inches on top of the Baraboo Bluffs, and 8 inches in extreme western Dane county on the Military Ridge near Blue Mound. Slightly cooler temperatures at these higher elevations may have contributed to the higher snow amounts since temperatures were in the lower 30s. Six inches fell in southwest Columbia county, in Green Lake (Green Lake county), and in Ripon (Fond du Lac county). Some freezing rain was mixed in with the snow over Fond du Lac county, resulting in some vehicle accidents.

WIZ064

Jefferson

21	0400CST	0	0	0.50K	Flood
22	0600CST				

Overnight rains of 1.00 to 1.50 inches in southeast Jefferson county, coupled with snow melt and a nearly frozen ground resulted in flooding in and around Palmyra. Two local village roads were covered with water that reached 1 to 2 feet deep. Hillside runoff washed out the bottom of a resident's gravel driveway about 1 mile north of Palmyra. Several other roads in southeast and east central Jefferson county had 1 to 4 inches of water covering them during this period of time.

WIZ046>047-051>052-056>059

Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington

27	0200CST	0	0	Heavy Snow
	0900CST			

Heavy, wet snow fell in a west to east swath across southcentral and southeast Wisconsin. Maximum amounts of 7.5 inches were measured at Rock Springs (Sauk county) and Portage (Columbia county), while 6 to 6.5 inches fell over southern Marquette county, southern Green Lake county, most of Dodge county, southern Fond du Lac county, northern Washington county, and most of Sheboygan county. Lesser amounts of 4 to 5 inches were noted in the Madison to Milwaukee area.



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

WIZ068

Green

01 0000CST
06 1200CST

0 0

Flood

Lowland river flooding, which started in February, continued into March on the Pecatonica River in and near Martintown. Although the maximum crest of 19.2 feet occurred in February, the highest level in March at this location was 13.2 feet on March 4th. The water level finally went below flood stage on March 6th at 1200 CST. Flooding in March was considered "minor."

WIZ046>047-051>052-
056>060

Marquette - Green Lake - Fond Du Lac - Sheboygan - Sauk - Columbia - Dodge - Washington - Ozaukee

12 2100CST
13 0900CST

0 0

Heavy Snow

Strong warm air advection, focused into a narrow region by an upper level weather disturbance, triggered heavy snowfalls across parts of southcentral and eastcentral Wisconsin. Gusty northeast winds of 20 to 40 mph resulted in considerable blowing and drifting of the heavy, wet snow. Radar imagery suggested that the snowfall had a convective nature. A maximum of 13 inches fell at Dalton in southern Green Lake county. Other totals include 12 inches at Juneau (Dodge county), 10 inches at Portage (Columbia county) and in southeast Marquette county, 8 inches in Baraboo (Sauk county), and 6 to 7 inches across the southern parts of Fond du Lac and Sheboygan counties as well as the northern parts of Washington and Ozaukee counties. Numerous vehicle accidents were reported, resulting in several indirectly-related injuries.

WIZ046>047-051

Marquette - Green Lake - Fond Du Lac

13 0900CST
14 0900CST

0 0

Heavy Snow

Another round of heavy snow affected parts of southcentral and eastcentral Wisconsin on the heels of a round of heavy snow during the previous 12 hour period. This second round was triggered by a low pressure system moving northeast through Illinois and Indiana. Thundersnow was observed in many locations. Maximum additional snowfalls reached 20 inches in extreme northern Marquette county, 18 inches in extreme northwest Green Lake county, 9 inches in extreme northwest Fond du Lac county, and 3 to 6 inches over Sauk, Columbia, Dodge, and Sheboygan counties. Consequently, the 36-hour snowfall totals reached 26 inches in northern Marquette county, 21 inches in extreme northwest Green Lake county, 15 inches in extreme northcentral Columbia county and extreme northwest Sauk county, and 14 inches in extreme northwest Fond du Lac county. These totals were new 24 hour March records, or new March storm records for some sites. Needless to say, there were numerous vehicle accidents, and several indirectly-related injuries.

WIZ065

Waukesha

17 2030CST
2359CST

0 0

Ice Storm

Freezing drizzle accumulated to 3/8 of an inch on roads and sidewalks over parts of Waukesha county, especially in and around Hartland. Numerous vehicle accidents were noted, although there no were no serious indirectly-related injuries



National Weather Service

Storm Data and Unusual Weather Phenomena



April 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--	---------------------------------------	--------------------

WISCONSIN, Southeast

Lafayette County

Gratiot **05** **1625CST** **0** **0** **100K** **Thunderstorm Wind**

Powerful thunderstorm winds ripped the roof off a building, and flattened 2 farm sheds just northeast of Gratiot.

Lafayette County

Darlington **05** **1640CST** **0** **0** **400K** **Thunderstorm Wind**

Powerful thunderstorm winds ripped off the roof of the Darlington Municipal building, damaged a couple roofs of nearby homes, and flattened two farm sheds 4 miles south of Darlington.

Iowa County

1 N Linden **05** **1700CST** **0** **0** **30K** **Thunderstorm Wind**

Intense thunderstorm winds pushed over 12 powerlines just north of Linden.

Rock County

Beloit **05** **1707CST** **0** **0** **65K** **Thunderstorm Wind**

Powerful thunderstorm winds tore several facids off buildings, and toppled large trees and power lines in and near Beloit. Other nearby rural areas also had large trees blown over.

Green County

**1 N Browntown to
3 N Browntown** **05** **1710CST** **0** **0** **35K** **Thunderstorm Wind**

Powerful thunderstorm winds damaged roof sections on farm sheds on 4 adjacent farms, as well as peeled some siding on the homes. Large trees were also leveled.

Rock County

Janesville **05** **1715CST** **0** **0** **5K** **Thunderstorm Wind**

Intense thunderstorm winds toppled large trees in and around the city of Janesville.

Iowa County

3 W Arena **05** **1720CST** **0** **0** **5K** **Thunderstorm Wind**

Intense thunderstorm winds pushed over large trees west of the village of Arena.

Walworth County

Walworth **05** **1721CST** **0** **0** **10K** **Thunderstorm Wind**

Powerful thunderstorm winds toppled large trees and power lines in and near the village of Walworth.

Sauk County

Spring Green **05** **1722CST** **0** **0** **80K** **Thunderstorm Wind**

Powerful thunderstorm winds raked the Spring Green area. Large trees were toppled, shingles and siding were torn off some homes, and a nearby old barn was pushed completely off its foundation. Road signs were also damaged.

Walworth County

2 SSW Whitewater **05** **1725CST** **0** **0** **5K** **Thunderstorm Wind**

Intense thunderstorm winds knocked over large trees south/southwest of Whitewater.

Dane County

Verona **05** **1725CST** **0** **0** **7K** **Thunderstorm Wind (G50)**

Powerful thunderstorm winds, measured at 58 mph by a local HAM, pushed over several large trees in Verona.

Green County

Brodhead **05** **1725CST** **0** **0** **5K** **Thunderstorm Wind**

Powerful thunderstorm winds blew over large trees in and near Brodhead.

Walworth County

Allen Grove **05** **1726CST** **0** **0** **5K** **Thunderstorm Wind**

Intense thunderstorm winds toppled large trees in and around the village of Allen Grove.



National Weather Service

Storm Data and Unusual Weather Phenomena



April 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--	---------------------------------------	--------------------

WISCONSIN, Southeast

Jefferson County

1 S Hebron **05** **1730CST** **0** **0** **100K** **Thunderstorm Wind**
Powerful thunderstorm winds tore two-thirds of a pole barn's roof off, and blew an unused garage door into the side of the barn.

Rock County

Johnstown **05** **1730CST** **0** **0** **5K** **Thunderstorm Wind**
Intense thunderstorm winds toppled large trees in and near Johnstown.

Dane County

Sun Prairie **05** **1735CST** **0** **0** **8K** **Thunderstorm Wind**
Powerful thunderstorm winds blew over large trees in and near Sun Prairie.

Dane County

Stoughton **05** **1740CST** **0** **0** **15K** **Thunderstorm Wind**
Intense thunderstorm winds toppled large trees and powerlines in Stoughton.

Columbia County

Lodi **05** **1752CST** **0** **0** **8K** **Thunderstorm Wind**
Powerful thunderstorm winds leveled large trees in and near Lodi

Columbia County

3 W Columbus **05** **1800CST** **0** **0** **13K** **Thunderstorm Wind**
Intense thunderstorm winds toppled large trees, one which fell on an automobile. Some of the trees block local roads for a while.

Racine County

3 NE Waterford **05** **1802CST** **0** **0** **15K** **Thunderstorm Wind**
Powerful thunderstorm winds toppled large trees and powerlines in the rural area northeast of Waterford.

Green Lake County

Marquette **05** **1810CST** **0** **0** **7K** **Thunderstorm Wind (G52)**
Emergency Management reported large trees blown over due to intense thunderstorm winds measured at 60 mph

Dodge County

Beaver Dam **05** **1813CST** **0** **0** **35K** **Thunderstorm Wind (G51)**
Powerful thunderstorm winds toppled large trees and powerlines in and near Beaver Dam. Just south of Beaver Dam, this same thunderstorm tore a steel door and part of a road off a farm shed.

Waukesha County

Mukwonago **05** **1815CST** **0** **0** **12K** **Thunderstorm Wind**
Powerful thunderstorm winds pushed over large trees and powerlines in and near Mukwonago.

Marquette County

Montello **05** **1815CST** **0** **0** **5K** **Thunderstorm Wind**
Intense thunderstorm winds toppled large trees in and near the city of Montello

Green Lake County

Berlin **05** **1825CST** **0** **0** **Hail (0.75)**

Washington County

West Bend **05** **1830CST** **0** **0** **9K** **Thunderstorm Wind**
Powerful thunderstorm winds toppled large trees in and around West Bend.

WIZ056

Sauk

06 **0600CST**
2000CST **0** **0** **16K** **High Wind**

Strong gradient winds were enhanced in areas of snow showers (transfer of higher level momentum downward to the surface due to mixing), resulting in scattered reports of high winds and damage. A storage metal building was damaged in Baraboo. A tree fell on top of a camper vehicle in Lake Delton. Felled trees briefly blocked roads in Reedsburg. In Spring Green, home gutters were torn



National Weather Service

Storm Data and Unusual Weather Phenomena



April 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

down, and road and advertizing signs were destroyed. Over in Merrimac, there was roof and soffet damage on a home. Elsewhere, there were scattered reports of large trees pushed over by the high winds whose gusts were estimated in the range of 60 to 70 mph.

WIZ064

Jefferson

06	0830CST 2000CST	0	0	100K	High Wind (G63)
----	--------------------	---	---	------	-----------------

Strong gradient winds, enhanced by higher gusts associated with snow showers, resulted in periods of high winds across the county. Wind damage was noted across different parts of the county. The high winds were estimated to be gusting in the 60 to 75 mph range. At the Watertown Airport, a peak gust of 73 mph was clocked at 1250 CST. The NWS Forecast Office near Sullivan had a measured gust of 63 mph at 1700 CST. At the Palmyra Airport around 1400 CST, the high winds completely demolished two hangers under construction, and damaged 3 others. An airplane and pickup truck at this airport were also damaged by flying debris. The Fort Atkinson area was periodically raked by the high winds which blew over large trees, some which damaged nearby homes. It was the same story in and around the city of Jefferson where large trees were toppled, and some damage was noted to TV antennas and business signs. Many other communities in this county also reported large trees blown down.

WIZ068

Green

06	0900CST 2100CST	0	0	80K	High Wind (G56)
----	--------------------	---	---	-----	-----------------

Strong gradient winds were enhanced in scattered snow showers, resulting in scattered pockets of high winds and damage. At 1257 CST a 64 mph wind gust was recorded in Monroe. In Monroe, a chimney was knocked over, and there was stop sign damage. Across the entire county there were scattered reports of trees pushed over. About 1 mile east of Jordon Center the high winds knocked over corn cribs, and damaged a barn and silo.

WIZ067

Lafayette

06	0900CST 2000CST	0	1	75K	High Wind
----	--------------------	---	---	-----	-----------

Strong gradient winds, enhanced by scattered snow showers, resulted in high winds which forced the collapse of a barn 1.5 miles southeast of South Wayne. Several of the milk cows inside the barn were killed, and 20 of them were trapped. The high winds also flipped over a pickup truck pulling a hay wagon about 3 miles northeast of Darlington. The driver was seriously injured in the rollover and was hospitalized. Elsewhere, the high winds blew over large trees in scattered parts of the county.

WIZ063

Dane

06	0900CST 2100CST	1	0	120K	High Wind (G62)
----	--------------------	---	---	------	-----------------

Strong gradient winds, enhanced by scattered snow showers (transfer of higher level momentum downward to surface by mixing), resulted in scattered damage reports. In Sun Prairie, the high winds, measured at 66 mph, blew open a glass door in a restaurant. The glass debris struck and injured an elderly women, who died from the injuries the next day. The Madison TV-3 weather station recorded a peak wind gust of 71 mph at 1715 CST. In the civil Town of Dane, a gust of 61 mph was noted. Southeast of Mount Horeb, the high winds forced the collapse of a barn. A camper vehicle was tipped over on by the powerful winds on Highway 113. The high winds also toppled large trees in scattered areas across the entire county. One tree in Monona fell against a home and damaged its siding and windows. Power outages were noted. People described the wind-driven debris as "missles flying through the air." F800T

WIZ069

Rock

06	0900CST 2000CST	0	0	250K	High Wind
----	--------------------	---	---	------	-----------

Strong gradient winds, enhanced by gusts generated in snow showers, resulted in periods of high winds across the county. Damage was scattered throughout the county. In Beloit, the powerful winds blew off part of a tennis center's roof (Loves Park), and flipped part of a home's roof onto a nearby pickup truck. On the east side of Janesville, the high winds peeled off a building's roof sheets around 1400 CST. Southwest of Janesville, the winds tore off a church's roof. In and around Janesville, there were scores of road signs damaged or twisted. In Clinton, the wind toppled trees, billboard signs, and mailboxes; besides tearing off pieces of a home's



National Weather Service

Storm Data and Unusual Weather Phenomena



April 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

roof. Over in Edgerton, missiles of metal broke some windows, and large trees were pushed over. Scattered over the remainder of the county there were reports of trees knocked over, roof shingles and siding ripped off homes, as well as some shed and barn damage. Wind gusts were estimated in the 60 to 75 mph range.

WIZ058

Dodge

06	0900CST	0	0	100K	High Wind (G71)
	2000CST				

Strong gradient winds, enhanced by gusts associated with snow showers, resulted in periods of high winds across Dodge county. A peak wind gust of 82 mph was measured near Resseville at 1730 CST. Throughout the county there were reports of large trees, power lines, road signs, and stop signs blown over by the high winds. There were also reports of roof shingles and shed doors being ripped off of buildings. In Hustiford, and metal shed was blown down, and there were a couple reports of old barns being demolished by the winds.

WIZ059

Washington

06	0900CST	0	0	50K	High Wind (G62)
	2000CST				

Strong gradient winds, enhanced by gusts associated with snow showers, resulted in periodic high winds across Washington county. A peak wind gust of 71 mph was measured in the late afternoon at the UW campus in West Bend. Throughout the county there were reports of downed trees, and power lines. In West Bend, a tree fell on and damaged a van, and somewhere else in the city a metal pole shed was destroyed by the winds. In Hartford, the high winds toppled a large tree which then damaged a car.

WIZ051

Fond Du Lac

06	0900CST	0	0	80K	High Wind
	2000CST				

Strong gradient winds, enhanced by higher gusts associated with snow showers, resulted in periodic reports of downed trees and power lines through the county. The peak gusts were estimated to be in the 60 to 75 mph range. A gust of 61 mph was measured in Fond du Lac at 0909 CST. The high winds tore metal roof pieces off a barn on Highway 45 east of Eden. Elsewhere across the county there were numerous reports of road signs, billboards, and mailboxes damaged directly by the high wind gusts or flying debris.

WIZ065

Waukesha

06	0900CST	0	0	180K	High Wind (G65)
	2359CST				

Strong gradient winds, enhanced by higher gusts associated with snow showers, periodically resulted in damage reports across Waukesha county. Throughout the county, large trees and powerlines were pushed over. At one point in time, nearly half of the county was without electrical service. A peak wind speed of 75 mph was measured in Big Bend around 1700 CST. At the Waukesha Airport, 5 hanger doors were damaged by the winds. Overhead garage doors were torn off on the UW-Waukesha Tech campus. In Elm Grove a fallen tree damaged a car. In Hartland, a fallen tree damaged a garage door. In Brookfield, a skylight window was damaged by a toppled tree. Over in New Berlin, a home's chimney was damaged by the winds, and a nearby church's roof was partially peeled off.

WIZ052

Sheboygan

06	1000CST	0	0	25K	High Wind
	2000CST				

Strong gradient winds, enhanced by gusts associated with snow showers, resulted in periodic reports of downed trees and power lines throughout Sheboygan county. The winds were estimated to be in the 60 to 70 mph range. A gust of 62 mph was measured in Sheboygan.

WIZ070

Walworth

06	1000CST	0	0	120K	High Wind (G70)
	2100CST				

Strong gradient winds, enhanced by higher gusts associated with rain and snow showers, resulted in periodic reports of wind damage throughout Walworth county. A peak gust of 80 mph was measured in Lake Geneva. Throughout the county there were reports of toppled trees and powerlines, and missing roof shingles. In East Troy a construction trailer was blown away, and a tree fell through



National Weather Service

Storm Data and Unusual Weather Phenomena



April 1997

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

WISCONSIN, Southeast

a home, causing major damage. Near Delavan, the high winds tore off a barn's roof. In Bloomfield the winds peeled off a small school's roof.

WIZ066

Milwaukee

06	1000CST	0	0	300K	High Wind
	2359CST				

Strong gradient winds, enhanced by higher gusts associated with scattered rain and snow showers, periodically resulted in wind damage reports across Milwaukee county. The wind gust were estimated in the 60 to 65 mph range. Throughout the county, hundreds of trees and some powerlines were toppled by the high winds. At the Milwaukee County Stadium, a partially built roof section was blown off into the parking lot. In northern Milwaukee, a new home under construction was completely destroyed by the high winds. In West Allis, a portion of a Credit Union's roof was torn off and thrown into traffic. In Whitefish Bay, a toppled tree fell against a home, damaging its siding and awning. In Greenfield, shingles were peeled off a building, a police car's windows were blown in, traffic lights were damaged, and a willow tree fell against a home. Elsewhere, the high winds tore roofing material off a building onto the freeway.

WIZ060

Ozaukee

06	1000CST	0	0	250K	High Wind
	2359CST				

Strong gradient winds, enhanced by higher wind gusts associated with scattered rain and snow showers, periodically resulted in wind damage reports across Ozaukee county. The peak wind gusts were estimated in the 60 to 70 mph range. Across the county, the high winds toppled hundreds of large trees, blew over many power lines, ripped off roof shingles, twisted road signs, damaged street lights, bent basketball poles, damaged roof canopies, and blew in garage doors. The hardest hit areas were in Thiensville, Grafton, Cedarburg, Port Washington, and Mequon.

WIZ071

Racine

06	1100CST	0	0	0.10K	High Wind
	2359CST				

Strong gradient winds, enhanced by higher gusts associated with scattered rain and snow showers, periodically resulted in wind damage across Racine county. The wind gusts were estimated to be in the 60 to 75 mph range. Throughout the county there were reports of toppled trees and some power lines. In Waterford, the high winds tore off part of a home's roof. In Racine, several cars were damaged by fallen trees around 1300 CST. Near the intersection of Highway 50 and Interstate 94, a construction companies portable office was knocked off its moorings. Southwest of Yorkville, several power poles were snapped at their base by the high winds (trees did not do this).

WIZ072

Kenosha

06	1100CST	0	2	300K	High Wind (G67)
	2359CST				

Strong gradient winds, enhanced by higher gusts associated with scattered rain and snow showers, periodically resulted in wind damage reports across Kenosha county. For much of the afternoon and evening, the sustained winds were in the 40-45 mph at the Kenosha Coast Guard station, where a peak gust of 77 mph was clocked at 1600 CST. A gust of 76 was noted at the Kenosha airport at about 1650 CST. Throughout the county, hundreds of trees were toppled, and many powerlines were blown over. In Somers, the high winds destroyed a pole shed. This shed's roof debris then hit a pickup truck, injuring the driver who was hospitalized. Also in Somers, around 1900 CST, the high winds tipped over a 12000 bushel silo. A pole barn in Paris was shredded by the high winds. At 1655 CST on the I-94 frontage road, a construction trailer was rolled over by the high winds. A security guard inside the trailer was seriously injured and hospitalized.



National Weather Service

Storm Data and Unusual Weather Phenomena



April 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WISCONSIN, Southeast

WIZ051-057>059-
063>065-069>070

Fond Du Lac - Columbia - Dodge - Washington - Dane - Jefferson - Waukesha - Rock - Walworth

11 1600CST
12 1600CST

0 0

Winter Storm

A spring winter storm deposited heavy, wet snow in a narrow region from around Janesville (Rock co.) northeast to near Fond du Lac (Fond du Lac co.). The storm consisted of two round of snow, with a break during the 0400 to 0800 CST timeframe. Some of the snow melted as it fell. Southeast winds gusting to around 30 mph helped lower visibilities to below 100 yards in open areas around midday on the 12th... resulting in numerous vehicle accidents. Thunder was also reported at several locations, with the convective snow resulting in snowfall rates of 2 inches per hour at the height of the storm. Maximum storm accumulations reached 16.5 inches at Juneau (Dodge co.), 12 inches in Lake Mills and Ft. Atkinson (Jefferson co.), 11 inches in Milton (Rock co.), 10 to 11 inches in extreme eastern Dane county, and 8 to 9 inches in extreme southern Fond du Lac county, northwest Washington county, northwest Waukesha county, northwest Walworth county, and southeast Columbia county.

Sheboygan County
Sheboygan

30 1815CST

0 0 10K

Thunderstorm Wind

Strong thunderstorm winds toppled several large trees in the city of Sheboygan. One tree fell on a home's garage and parked car, resulting in several thousands in damage. The home's electrical lines were also pulled down.



National Weather Service

Storm Data and Unusual Weather Phenomena



May 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WISCONSIN, Southeast

Waukesha County

Eagle	05	1240CST			0	0			Hail (0.75)
--------------	----	---------	--	--	---	---	--	--	--------------------

Racine County

2 NW Sturtevant	05	1315CST			0	0			Hail (1.75)
-----------------	----	---------	--	--	---	---	--	--	--------------------

WIZ058>060-065>066 Dodge - Washington - Ozaukee - Waukesha - Milwaukee

05		1805CST 1900CST			0	0	29K		High Wind
----	--	--------------------	--	--	---	---	-----	--	------------------

Strong gradient winds raked parts of southeast Wisconsin. Peak gusts were in the 60-70 mph range. Trees were blown down in Hartland (Waukesha), a construction trailer was blown over in eastern Dodge county, and trees were toppled in Richfield (Washington), pulling down a power pole and power lines. Uprooted trees were reported in BayView (Milwaukee), with one tree falling on and damaging two cars. Also in Milwaukee county, the high winds ripped off a sign from a business building in Franklin. In Ozaukee county, power lines were downed.

Lafayette County

4 N Belmont	18	0930CST			0	0	17K		Lightning
-------------	----	---------	--	--	---	---	-----	--	------------------

Lightning struck and killed 13 milk cows

Lafayette County

1 W New Digging	18	1640CST			0	0			Hail (0.88)
-----------------	----	---------	--	--	---	---	--	--	--------------------

Walworth County

Genoa City	18	1810CST			0	0			Hail (0.75)
------------	----	---------	--	--	---	---	--	--	--------------------

WIZ063

Dane									
	20	0600CST			0	0			Extreme Cold

Madison (Dane co) reported a new record low temperature of 30 degrees, replacing the old record of 32. Scattered frost was noted in the areas around Madison.



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1997

June 1997									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>WISCONSIN, Southeast</u>									
Sauk County La Valle	15	1530CST			0	0	3K		Thunderstorm Wind
Marquette County 4 ENE Oxford	15	1610CST			0	0	1K		Thunderstorm Wind
Sauk County North Freedom	15	1610CST 1625CST			0	0			Urban/Sml Stream Fld
Sauk County Reedsburg	15	1610CST			0	0	1K		Thunderstorm Wind
Iowa County Dodgeville	15	1615CST			0	0	3K		Thunderstorm Wind
Marquette County 6 SSE Glenoak	15	1615CST			0	0	1K		Thunderstorm Wind
Green Lake County 1 W Green Lake	15	1620CST			0	0	3K		Thunderstorm Wind
Sauk County 2 S Lake Delton	15	1620CST			0	0	1K		Thunderstorm Wind
Sauk County Spring Green to 8 NW Spring Green	15	1620CST 1640CST			0	0	15K		Thunderstorm Wind
Dane County Roxbury	15	1630CST			0	0	3K		Thunderstorm Wind
Waukesha County Chenequa	15	1630CST			0	1	3K		Thunderstorm Wind
Dodge County 1 N Lowell	15	1645CST			0	0	1K		Thunderstorm Wind
Dane County Madison to Sun Prairie	15	1650CST 1705CST			0	0	20K		Thunderstorm Wind
Green County New Glarus	15	1700CST 2000CST			0	0			Urban/Sml Stream Fld
Lafayette County Belmont	15	1710CST			0	0	1K		Thunderstorm Wind
Iowa County 2 E Arena	15	1725CST			0	0	3K		Thunderstorm Wind
Lafayette County 2.5 NE Lamont	15	1725CST			0	0	5K		Thunderstorm Wind
Iowa County 1 SE Ridgeway	15	1800CST			0	0	3K		Thunderstorm Wind
Rock County 2 N Milton	15	1817CST			0	0	1K		Thunderstorm Wind
Green County Attica	15	1830CST			0	0	2K		Thunderstorm Wind
Rock County Footville	15	2052CST			0	0	1K		Thunderstorm Wind
Rock County 7 E Janesville	15	2110CST			0	0	1K		Thunderstorm Wind



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--	---------------------------------------	--------------------

WISCONSIN, Southeast

Walworth County

**2 N Walworth to
Delavan**

15 2113CST 2135CST 0 0 5K Thunderstorm Wind

Several rounds of thunderstorms moved rapidly northeast through south central and southeast Wisconsin resulting in primarily wind damage to trees, tree limbs and power lines. In addition, a tree fell on a home in Sun Prairie (Dane Co.) and windows were blown out of a building on the UW campus in Madison. A porch was blown down at a residence northeast of Lamont (Lafayette Co.). Urban street flooding occurred in New Glarus due to 4.5 to 5.0 inches of rain in 3 hours. No damage was noted due to this flooding. Flag poles were bent and flags blown off in La Valle (Sauk Co.) besides the usual reports of large branches downed. In the Spring Green area a couple farm outbuildings and a residence were damaged. Strong thunderstorm winds split a large tree in in Chenequa (Waukesha Co.) which then fell on a residents porch and injured a woman. Intense rainfall also resulted in urban street flooding in North Freedom (Sauk Co.).

Columbia County

1 E Wisconsin Dells

15 1555CST 0 0 3K Thunderstorm Wind

Columbia County

5 N Pardeeville

15 1625CST 0 0 3K Thunderstorm Wind

Columbia County

3 W Lodi

15 1655CST 0 0 2K Thunderstorm Wind

Columbia County

10 W Columbus

15 1715CST 0 0 2K Thunderstorm Wind

Two different rounds of severe storms caused damage in Columbia county. Trees, tree limbs and power lines were downed near the Dells, near Pardeeville, west of Columbus, and west of Lodi.

Dane County

Sun Prairie

15 2130CST 0 0 0.20K Lightning

Lightning splintered 2 trees with debris damaging a nearby home's porch lattice, front door, and patio door window.

Lafayette County

1 E Darlington

15 2340CST 0 0 10K Lightning

Lightning struck a home's roof, igniting a fire that damaged the roof and attic areas. In addition, there was water and smoke damage to the upper portion of the home.

Rock County

Evansville

20 0735CST 0 0 Hail (1.00)

Green County

1 N Clarno

20 1745CST 0 0 Hail (0.75)

Lafayette County

South Wayne

20 1805CST 0 0 5K Thunderstorm Wind

Thunderstorm winds downed large trees in S. Wayne. One tree fell on a home, resulting in roof damage.

Waukesha County

**1.5 SE Hartland to
Hartland**

20 2130CST 0 0 5K Lightning

Lightning struck a homes chimney ,sending pieces flying, damaging the roof and wiping out the utility lines to the home

Kenosha County

Kenosha

20 2200CST 1 0 Lightning

Victim was riding a bike in heavy rainfall when struck by lightning.



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--	---------------------------------------	--------------------

WISCONSIN, Southeast

		M19OU					
Lafayette County							
Benton	21	0215CST			0 0	3K	Thunderstorm Wind
Iowa County							
1 N Dodgeville	21	0240CST			0 0	1K	Thunderstorm Wind
Waukesha County							
Dousman	21	0344CST			0 0		Hail (0.88)
Dane County							
6 E Madison	21	0349CST			0 0	0.50K	Thunderstorm Wind
Dane County							
2 N Stoughton	21	0405CST			0 0	0.10K	Thunderstorm Wind
Dane County							
Marshall	21	0407CST			0 0	0.30K	Thunderstorm Wind (G58)
Jefferson County							
Lake Mills	21	0425CST 0435CST			0 0	3K	Thunderstorm Wind (G56)
Waukesha County							
Hartland	21	0530CST			0 0	0.50K	Thunderstorm Wind (G52)
Waukesha County							
1 E Sussex	21	0530CST			0 1		Lightning
Lafayette County							
Gratiot	21	0539CST			0 0	1K	Thunderstorm Wind
Walworth County							
East Troy	21	0700CST			0 0	2K	Thunderstorm Wind

Early morning severe thunderstorms descended upon southern Wisconsin causing scattered tree and power line damage. One large hail report was noted in Dousman (Waukesha Co.). A 67 mph wind was reported at Marshall (Dane Co.). Lightning also played a role in the weather havoc when a young woman was struck at a charity track meet held at the Sussex Hamilton High School in Waukesha County. She was treated at a local hospital and released. In Walworth County trees were downed on a garage and sail boat in East Troy. Lowland flooding was reported near some of the lakes surrounding East Troy due to the heavy rains accompanying the thunderstorms.

Milwaukee County

Fox Pt to Milwaukee	21	0230CST 1200CST			0 0	78.7M 18K	Flash Flood
---------------------	----	--------------------	--	--	-----	-----------	-------------

Severe flash flooding occurred in Milwaukee county as a result of heavy rainfall amounts of up to nearly 10 inches over a 30 hour period ending about 1200CST. This flash flooding was greater than a "100 year rainfall" based on rainfall frequency maps. No one was injured or killed by the flood waters, thanks to superb rescue efforts by local law enforcement officials and firefighters. Firefighters in boats rescued 20 people from their flooded homes. Besides public sector damage in county/city parks, there was widespread private and business damages. The hardest hit areas were the cities of Brown Deer, Wauwatosa, and the Piggsville, Lincoln Creek, Sherman Park, and Menomonee Valley areas of the city of Milwaukee. The earliest flash flooding occurred in Fox Point around 0230CST, with other northern Milwaukee County locations experiencing flash flooding after 0300CST. (On July 7th, Milwaukee county was officially declared a Federal Disaster Area, making county residents and business owners eligible for Federal disaster aid).

About 9600 homes in the county had minor damage, 137 with major damage, and 15 were destroyed.. Monetary value of reported residential damage was \$53.365 million. In the business sector, 7 had minor damage, 22 had major damage, and 3 were destroyed. Several hundred more businesses had some damage, but never reported it to county emergency managers. Total reported business losses were pegged at \$9.665 million. Three farms in the extreme southern part of the county reported flood damages of \$18,000. Public sector damages were \$1.451 for debris clearance, \$309,400 for protective measures, \$1.544 million for road systems, \$395,000 for water control, \$3.397 million for buildings, \$1.555 million for utilities, and \$7.0 million for "other." Total public sector damages were pegged at \$15.651 million.



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1997

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

WISCONSIN, Southeast

Combining Milwaukee County and the surrounding counties in the metro area, about 25,000 customers lost electrical power due to damaged power lines... about 15,000 natural gas customers lost natural gas service... and about 4000 homes or businesses had their telephone service disrupted. Hundreds of people were forced from their homes until repairs or cleanups could be completed. Basement flooding county-wide severely damaged or wiped out much personal property. Several hospitals were adversely affected either by lower floor flooding or the loss of electrical service. Many car dealerships and repair shops suffered much damage to new and used vehicles. At least 20 schools sustained major structural damage. Storm sewers simply could not keep up with the deluge and overflowed/backed up in many locations. Raw sewage from sanitary sewers backed up in thousands of homes. Raw sewage also made its way into Lake Michigan due to failure of sanitary sewers. The loss of electrical service prevented the use of sump pumps, which compounded the flooding problems. In the days following this historical flood, the local Red Cross ran out of clean-up kits.

Many roads and underpasses across the county were flooded with several feet of water, resulting in many road closures. Many drivers had to be rescued after their vehicles were swept away by deep, fast water currents over roads. Interstate 43 in extreme northern Milwaukee county was closed from around 0500CST to 1900CST in the evening. At one point the water depth on the road was 12 feet! Firefighters in rescue boats, while kneeling, managed to touch the bottom of the County Line Road overpass on I-43! In Milwaukee, a sewer line collapsed in front of the Harley Davidson Motorcycle plant, resulting in a sinkhole 30 feet deep and 60 feet wide.

The Milwaukee Brewers baseball game scheduled for the evening hours was canceled due to water flooding the playing field to a depth of 2 to 3 feet. The last time this happened was in 1986. A portion of a bluff collapsed in Juneau Park along the Lake Michigan shoreline after soils became saturated. For the first time in memory, Brown Deer and Green Bay roads in the city of Brown Deer flooded, and fish were observed to be swimming on these roads! A 50 foot section of the lakeside bluff at Klode Park in Whitefish Bay slid into Lake Michigan, taking trees with it. North of Klode Park, a 200 foot strip of private land slid into the lake. There was other scattered damage to stairs along the Lake Michigan bluffs. In addition, many roads in the county had sections of asphalt washed away by the water currents.

Fast flowing, high waters on the Kinnickinnic River in the southern parts of the city of Milwaukee resulted in four 500 ton barges breaking loose. These barges then drifted downriver and smashed into 21 pleasure crafts just west of 1st Street. Damage to the pleasure craft amounted to \$1.2 million (two sailboats sunk). Honey Creek in Wauwatosa reached the highest levels that local residents could ever remember. Water depths on nearby roads and River Parkway reached at least 5 feet! One hundred nearby homes were evacuated. Lowland flooding also occurred along the Root River in the southern part of the county.

Rainfall totals for the 30-hour period ending 1200CST were 9.78 inches in Brown Deer (TV-6 studio), 8.99 inches in the northwest corner of the city of Milwaukee, 7.25 in Greenfield, and 7.20 in Wauwatosa. Nearly all of the remainder of the northern half of Milwaukee county had 6 to 7 inches of rain, while the southern fourth had 3 to 6 inch totals. Mitchell Field recorded 5.25 inches. The bulk of these rainfall totals occurred between 2000CST on July 20 through 1000CST on the 21st

The Menomonee River in Wauwatosa crested at a new record level of 16.63 feet at 0835CST on the 21st, or 7.63 feet over flood stage (greater than a 100 year flood). Major flooding occurred near and along its banks. It went below flood stage mid-morning on July 22nd. The Milwaukee River in Milwaukee crested at a new record level of 10.0 feet at 1030CST on the 21st, or 3 feet over flood stage (greater than a 100 year flood). It went below flood stage during the evening hours on the 21st. Lincoln Creek in Milwaukee crested at 20.09 feet at 0900CST on the 21st, or 7.09 feet above flood stage. Flooding on this creek was rated as major. Oak Creek in the southern part of the city of Milwaukee crested at 9.72 feet at 0815CST on the 21st, or 2.72 feet above flood stage (approx. 40 year flood). Flooding along this creek was rated as moderate.

Waukesha County

Menomonee Falls to Pewaukee

21	0230CST 1000CST	0	0	5.4M	1.2M	Flash Flood
----	--------------------	---	---	------	------	-------------

Flash flooding occurred primarily in eastern Waukesha county as a result of heavy rainfall amounts in excess of 5 to over 8 inches in a 30 hour period ending about 1000CST. This flash flooding was greater than a "100 year rainfall" based on rainfall frequency maps. No one was injured or killed by the flood waters, thanks to superb rescue efforts by local law enforcement officials and firefighters. Besides public sector damage in county/city parks, there was private and business damages. The hardest hit area was the city of Menomonee Falls, followed by New Berlin, Lannon, Sussex, and the town of Lisbon. Spotty flash flooding was noted in the cities of Oconomowoc, Hartland, Delafield, and Pewaukee. (On July 7th, Waukesha county was officially declared a Federal Disaster Area, making county residents and business owners eligible for Federal disaster aid).

Areas along and near the Menomonee River experienced moderate to major flooding to nearby roads, homes, and businesses. In Menomonee Falls, several homes had significant structural damage, while about a total of 50 homes and basements had significant loss of personal property. Some car dealerships and repair shops suffered damage to new and used vehicles. Hundreds of homes and businesses lost their electrical, natural gas, or telephone service. Many traffic lights were also inoperative.

Several roads and underpasses across the eastern half of the county were flooded with several feet of water, resulting in road



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1997

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

WISCONSIN, Southeast

closures. Some drivers had to be rescued after their vehicles were swept away by deep, fast water currents over roads. Sections of asphalt paving were washed away on several roads in the eastern part of the county.

Many farm fields in the eastern half of the county suffered soil erosion, or had enough standing water leftover to completely damage this years crops. Nearly all golf courses in the county were closed due to high water levels. A 12-foot sinkhole developed in the backyard of a Hartland residence as the ground collapsed

Rainfall totals for the 30-hour period ending 1200CST were 8.40 inches in the city of Menomonee Falls, about 6.50 inches in Sussex, 5.95 inches in Elm Grove, 5.20 inches in Pewaukee and Waukesha, 5.01 inches in Hartland, 3.90 inches in Delafield, and 2.44 inches in Oconomowoc.

Due to runoff, the Fox River throughout the county rose to 1 to 2 feet above flood stage, resulting in minor to moderate flooding along the river. At some locations along this river, this would be a 5 to 10 year flood.

Flood gates on dams at Pewaukee and Nagawicka Lakes were opened to lower lake levels and relieve pressure. Properties and businesses along and near these lakes sustained flooding damage. These lakes were at the highest levels ever remembered by local residents. In the southeast part of the county, a small earthen dam on Jewel Creek just north of Little Muskego Lake was in danger of failing due to high water levels and water pressure. A small portion of the dam was breeched. However, later in the day on June 21st and on the 22nd, DNR officials gradually lowered the lake in a controlled manner, to avoid any serious flooding.

Washington County

Germantown to West Bend

21	0300CST 1000CST	0	0	2.7M	Flash Flood
-----------	----------------------------	----------	----------	-------------	--------------------

Flash flooding occurred primarily in southern Washington county as a result of heavy rainfall amounts in excess of 6 inches over a 30 hour period ending about 1200CST. This flash flooding was greater than a "100 year rainfall" based on rainfall frequency maps. No one was injured or killed by the flood waters, thanks to superb rescue efforts by local law enforcement officials and firefighters. Besides public sector damage in county/city parks, there was private and business damages. The hardest hit area was the city of Germantown. There were other reports of flooding damage scattered across the southern part of the county. (On July 7th, Washington county was officially declared a Federal Disaster Area, making county residents and business owners eligible for Federal disaster aid).

The total of \$2.7 million in property damages consisted of \$2.5 million in residential damage and \$200,000 in public damage.

Areas along and near the Menomonee River experienced moderate to major flooding to nearby roads, homes, and businesses. In Germantown, 2 homes had severe structural damage, while about a total of 70 homes and basement damage wall damage and/or loss of personal property. Some car dealerships and repair shops suffered damage to new and used vehicles. A Germantown golf course had water depths of 3 feet, resulting in soil erosion. Several new lawns were washed away on West Bend properties.

Several roads and underpasses across the southern part of the county were flooded with several feet of water, resulting in many road closures. Highway 41 was covered with water to a depth of 5 feet at the County Trunk Q overpass. Some drivers had to be rescued after their vehicles were swept away by deep, fast water currents over roads. Several roads in and around Germantown had portions of asphalt washed away by the flood waters.

Rainfall totals for the 30-hour period ending 1200CST were about 7.50 inches in the extreme southeast corner of Germantown. Other totals included 6.26 inches near the Germantown city hall, 3.56 inches in West Bend, 3.40 inches in Hubertus, and 2.51 inches in Hartford.



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

Ozaukee County

Mequon to
1 E Cedarburg

21	0330CST 1200CST	0	0	3.6M	Flash Flood
----	--------------------	---	---	------	-------------

Flash flooding occurred in southern Ozaukee county as a result of heavy rainfall amounts in excess of 8 inches over a 30 hour period ending about 1200CST. This flash flooding was greater than a "100 year rainfall" based on rainfall frequency maps. No one was injured or killed by the flood waters, thanks to superb rescue efforts by local law enforcement officials and firefighters. Besides public sector damage in county/city parks, there was widespread private and business damages. The hardest hit areas were the cities of Mequon and Thiensville, a small area about 2 miles southwest of Fredonia, and east of Cedarburg. By mid-morning much of downtown Thiensville was essentially a functional lake. (On July 7th, Ozaukee county was officially declared a Federal Disaster Area, making county residents and business owners eligible for Federal disaster aid)

It is estimated that there was about \$5.2 million in residential/business damage covered by flood insurance policies. This amount is not included in the \$3.6 million in property damage listed for Ozaukee county in this report

Areas along and near the Milwaukee River experienced moderate to major damage to homes and businesses. Hundreds of homes and businesses in southern Ozaukee county had significant damage to basements and personal property. Over a dozen homes in Mequon had collapsed basement walls. Hundreds of customers lost electrical power, natural gas, or telephone service. Many people were forced from their homes until repairs or cleanups could be completed. Some car dealerships and repair shops suffered damage to new and used vehicles. The loss of electrical service prevented the use of sump pumps in many homes, which compounded the flooding problems.

Many roads and underpasses across the southern part of the county were flooded with several feet of water, resulting in road closures. Some drivers had to be rescued after their vehicles were swept away by deep, fast water currents over roads. Several roads in the southern part of the county had sections of asphalt washed away.

Rainfall totals for the 30-hour period ending 1200CST were about 8.50 inches in the extreme southern part of the county along the county line. Other totals included 6.25 inches near the Mequon city hall, 3.09 inches at Cedarburg, 3.08 inches in Waubesa, and 2.26 inches in Port Washington, which experienced a disastrous 100 year flood 1 year ago when over 11 inches of rain fell in a 3 day period.

Jefferson County

Watertown to
Ft Atkinson

21	0400CST 0900CST	0	0	50K	Urban/Sml Stream Fld
----	--------------------	---	---	-----	----------------------

Heavy rains during the morning hours on June 21st resulted in urban flooding in several cities across Jefferson county. In Watertown, some city streets were closed due to 1.62 inches of rain in a couple hours ending at 0600CST on the 21st. Underpasses were blocked due to high water, while in other Watertown streets the water depth reached 6 to 8 inches. Twenty Watertown homes had minor basement flooding. In the city of Jefferson, it was the same story as a road on the south side of the city was closed due to high water levels. In Ft. Atkinson, some businesses reported minor basement flooding, while some driveway sand and gravel, at a McDonald's restaurant under construction, was washed away.



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

Fond Du Lac County

Fond Du Lac

21	0430CST 1200CST			0	0	300K	Flash Flood
----	--------------------	--	--	---	---	------	-------------

Isolated flash flooding occurred in Fond du Lac county as a result of heavy rainfall amounts up to 5 inches in a 30 hour period ending about 1200CST. No one was injured or killed by the flood waters.

Two elementary schools under construction in the city of Fond du Lac experienced roof damage due to the heavy downpours of rain. The intense rains around 0500CST evidently toppled an old tree which then crashed through the roof of a Fond du Lac home. The home's garage and dormer were also damaged. In the flood plain of the village of North Fond du Lac, 51 homes experienced significant basement flooding which resulted in considerable damage to carpets, furniture, and appliances.

Highway 41 was closed in the city of Fond du Lac from 0900CST to 1100CST on the 21st due to high water levels.

Rainfall totals for the 28-hour period ending 1000CST were 5 inches in the extreme eastcentral part of the county. The city of Fond du Lac picked up 2.28 inches on the 20th, and 2.49 inches on the 21st, for a total of 4.77 inches. The individual 24 hour values were new daily records for the calendar days.

Sheboygan County

Oostburg to Sheboygan Falls

21	0500CST 1200CST			0	0	150K	Flash Flood
----	--------------------	--	--	---	---	------	-------------

Isolated flash flooding occurred in Sheboygan county as a result of heavy rainfall amounts of 5 to 6 inches in a 30 hour period ending about 1200CST. Most of the rain fell after 0500CST on the 21st. No one was injured or killed by the flood waters.

In and around Oostburg, residential homes experienced significant basement flood damage to personal property, some roadways had sections washed out, and in the city an apartment complex was evacuated. In the city of Sheboygan, an 8-foot section of Kohler Memorial Drive was washed out by flood waters. The Sheboygan High School had 4 feet of water in its basement. In Sheboygan Falls, 60 homes had basement flooding. Several golf courses across the county experienced flooding and soil erosion. Lowland flooding also occurred along the Sheboygan River and Pigeon Creek. Some farm fields suffered minor soil erosion. Rainfall totals for the 30-hour period ending 1200CST were almost 6 inches in the city of Sheboygan, and 5.27 inches in Plymouth.

The Sheboygan River in the city of Sheboygan crested at 10.71 feet at 0945CST on the 21st, or 2.71 feet over flood stage (a 10 year flood).

Sauk County

Lake Delton

24	1458CST			0	0	8K	Thunderstorm Wind
----	---------	--	--	---	---	----	-------------------

Marquette County

Oxford

24	1502CST			0	0	1K	Thunderstorm Wind
----	---------	--	--	---	---	----	-------------------

Green County

Jordan

24	1535CST			0	0	3K	Thunderstorm Wind
----	---------	--	--	---	---	----	-------------------

Dane County

Madison

24	1540CST			0	0	0.50K	Thunderstorm Wind (G57)
----	---------	--	--	---	---	-------	-------------------------



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1997

June 199									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>WISCONSIN, Southeast</u>									
Dane County Middleton	24	1540CST 1630CST			0	0			Urban/Sml Stream Fld
Green County Monticello	24	1545CST			0	0	3K		Thunderstorm Wind
Dane County Madison to Monona	24	1559CST 1605CST			0	0	2K		Thunderstorm Wind (G51)
Dodge County Richwood	24	1605CST			0	0	100K		Thunderstorm Wind
Rock County Beloit	24	1610CST			0	0	1K		Thunderstorm Wind
Rock County Edgerton	24	1610CST			0	0	1K		Thunderstorm Wind
Jefferson County Watertown	24	1613CST			0	0	2K		Thunderstorm Wind (G62)
Jefferson County 2 S Lake Mills to Ft Atkinson	24	1615CST 1655CST			0	0	15K		Thunderstorm Wind
Dodge County Watertown	24	1625CST			0	1	10K		Thunderstorm Wind
Dodge County Iron Ridge to Theresa	24	1629CST 1645CST			0	0	100K		Thunderstorm Wind
Washington County Thompson to Hartford	24	1636CST 1655CST			0	0	3K		Thunderstorm Wind
Dodge County Juneau	24	1640CST			0	0	150K		Thunderstorm Wind (G74)
Washington County 6 W Kewaskum to Fillmore	24	1645CST 1705CST			0	1	4K		Thunderstorm Wind
Fond Du Lac County 2 W Eden to Ashford	24	1655CST 1705CST			0	0	75K		Thunderstorm Wind
Walworth County Darien	24	1655CST			0	0	1K		Thunderstorm Wind
Sheboygan County Plymouth to Elkhart Lake	24	1659CST			0	0	5K		Thunderstorm Wind (G55)
Waukesha County Mukwonago	24	1700CST			0	0	1K		Thunderstorm Wind (G54)
Ozaukee County 1 NW Fredonia to Belgium	24	1710CST			0	0	1K		Thunderstorm Wind
Racine County 2 E Burlington to Union Church	24	1715CST 1725CST			0	1	3K		Thunderstorm Wind
Walworth County 6 N Lake Geneva to 2 NW Genoa City	24	1715CST			0	0	4K		Thunderstorm Wind
Sheboygan County Sheboygan	24	1720CST			0	0	1K		Thunderstorm Wind



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

Milwaukee County									
West Allis to Franklin	24	1722CST			0	2	5K		Thunderstorm Wind (G52)
Walworth County									
Delavan	24	1735CST			0	0	1K		Thunderstorm Wind (G56)
Waukesha County									
Waukesha	24	1735CST			0	0	3K		Thunderstorm Wind
Milwaukee County									
Milwaukee	24	1738CST			0	0			Thunderstorm Wind (G50)
Waukesha County									
3 SW Waukesha	24	2230CST			0	0	150K		Lightning

Severe thunderstorms exploded over southern Wisconsin during the afternoon and caused widespread tree and power line damage with scattered damage or destruction to residential roofs, a dozen automobiles, and road signs. Many roads were blocked by toppled trees. Early on in Lake Delton (Sauk Co) a small construction trailer was tipped over and a boat was blown off a trailer and damaged. An injury occurred when a motorcyclist was blown off the road near Watertown (Dodge Co). The Juneau AWOS (Dodge Co) reported an 85 mph wind gusts around the time when a hanger was destroyed and trailer overturned at the Dodge County Airport. An airplane was also totaled. Major damage occurred in Fond du Lac County when a barn was blown down near Eden and a house moved a full foot off its foundation in Ashford.

About 21,000 customers suffered power outages due to downed trees & power lines. In Fillmore (Washington Co) a fallen tree limb injured a man. East of Burlington (Racine Co) a man was seriously injured after he was struck by a toppled tree. Powerful winds blew down a tent in Franklin (Milwaukee Co.), slightly injuring 2 people. Lightning struck and injured a woman running a charity race at the local high school near Sussex (Waukesha Co). Later that night, lightning struck a house just southwest of Waukesha (Waukesha Co) starting a fire that resulted in a total loss of property. Heavy rains of 1 to 2 inches in a short period of time in Middleton (Dane Co) resulted in water depths of 4 to 6 inches on urban roads.

Milwaukee County									
South Milwaukee	30	1330CST			0	0	20.4K		Lightning
									Lightning struck an antenna and traveled into garage, setting fire to two cars, a truck camper, motorcycle and other things in the garage.
Racine County									
Caledonia	30	1345CST			1	0			Lightning
									An elderly man trimming tress in his yard was struck and killed by lightning. M74UT
Walworth County									
3.8 NE Lake Geneva	30	1357CST 1417CST			0	0	3.5K		Heavy Rain
									A downpour of 1.41 inches of rain washed a gravel driveway out, allowing a parked van to slide down a slope into the White River.



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

Sauk County
Reedsburg 01 2315CST 0 0 10K Thunderstorm Wind

Sauk County
4 NE Reedsburg 01 2320CST 0 0 6K Lightning

Lafayette County
Belmont 02 0000CST 0 0 1K Hail (2.00)

Iowa County
3 E Rewey to
6 E Rewey 02 0010CST
0015CST 0 0 10K 200K Hail (1.75)

Waukesha County
Brookfield 02 0215CST 0 0 105K Lightning

Racine County
Racine 02 0245CST 0 0 0.10K Lightning

Large hail, high winds, and lightning let loose over south-central Wisconsin causing damage to trees and power lines with 45 minute power outages in Reedsburg (Sauk Co) and a lightning induced home fire just northeast of Reedsburg. Hail pummeled the area east of Rewey (Iowa Co) destroying crops and damaging property. As the storms moved east lightning struck a home in Brookfield (Waukesha Co) burning the attic, garage, and breezeway. The Main Street bridge in the city of Racine(Racine Co) was also struck by lightning, shorting out the motor that operated the lift and thereby disabling the draw bridge.

Milwaukee County
Shorewood 02 1800CST 0 0 25K Lightning
Lightning induced fire destroyed a garage and parked car.

Sauk County
6 SE Reedsburg 08 0100CST 0 0 8K Lightning
Lightning bounced off a large tree and struck a home, blowing a hole in the wall and causing smoke damage to home.

Dane County
Madison 08 0420CST 0 0 6K Lightning
A Madison Gas & Electric substation sustained a direct lightning hit leaving 2800 patrons without power for 3 hours.

Washington County
2 S Kewaskum 13 1223CST 0 0 Hail (1.00)

Ozaukee County
Grafton 13 1317CST 0 0 0.20K Lightning
Lightning struck a fuse box at a Wisconsin Electric power company, leaving 150 homes without power for 5 hours

Columbia County
3 E Portage 16 2125CST 0 0 80K Lightning
Much of a barn and most of it's contents were destroyed in a lightning induced fire.

Dane County
Madison 16 2200CST 0 0 15K Lightning
A lightning bolt struck a home and started an attic fire.

Jefferson County
2 NNE Ixonia 16 2200CST 0 0 250K Lightning
Lightning struck a machine shed. The ensuing fire destroyed the half-dozen pieces of farm equipment inside



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
<u>WISCONSIN, Southeast</u>									
Dane County									
Madison	16	2205CST			0	0	0.20K		Lightning
									Lightning struck and damaged a home 's chimney.
Dane County									
Madison	16	2245CST			0	6			Lightning
									An off-shoot branch of lightning struck 6 people, knocking them off their feet and causing headaches & numb fingers.
Fond Du Lac County									
Fond Du Lac	16	1658CST			0	0	20K		Thunderstorm Wind
Green Lake County									
Green Lake	16	1713CST			0	0	0.20K		Thunderstorm Wind
Fond Du Lac County									
Fond Du Lac	16	1716CST			0	0			Thunderstorm Wind (G57)
Marquette County									
Neshkoro	16	1720CST			0	0			Hail (0.75)
Sheboygan County									
Elkhart Lake	16	1725CST			0	0	4K		Thunderstorm Wind (G61)
Green Lake County									
Princeton to 3 SW Berlin	16	1730CST			0	0	1K		Thunderstorm Wind
Marquette County									
2 SSE Neshkoro	16	1735CST			0	0	0.40K		Thunderstorm Wind
Green Lake County									
Princeton	16	1740CST			0	0			Hail (1.75)
Fond Du Lac County									
2 NW Waupun	16	1800CST			0	0	2K		Thunderstorm Wind
Dodge County									
Waupun to 4 WSW Waupun	16	1810CST			0	0	1.5K		Thunderstorm Wind
Green Lake County									
Princeton	16	1830CST			0	0			Hail (1.00)
Marquette County									
6 NNE Westfield	16	1835CST			0	0	0.50K		Thunderstorm Wind
Dane County									
Marshall	16	1900CST			0	0	1.1K		Thunderstorm Wind
Jefferson County									
Waterloo	16	1900CST			0	0	0.70K		Thunderstorm Wind
Marquette County									
4 N Westfield	16	1912CST			0	0			Hail (0.75)
Washington County									
West Bend	16	1920CST			0	0	10K		Lightning
Milwaukee County									
Milwaukee	16	1942CST			0	0	0.80K		Thunderstorm Wind
Columbia County									
3 NE Pardeeville	16	2015CST			0	0	35K		Thunderstorm Wind

A hot summer afternoon spawned a series of severe thunderstorms which swept across south-central and southeast Wisconsin dropping large hail and causing wide scattered tree and power line damage. In the city of Fond du Lac a tree fell on a home causing significant damage to the roof and second story rooms. In the Elkhart Lake region of Sheboygan county, 70 mph winds were reported with numerous trees downed. High winds and tree damage were reported all across the northern half of Sheboygan county. Lightning played a destructive role when two homes were hit in West Bend, (Washington Co) starting a fire that damaged walls and



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

roofs. Thunderstorm winds were responsible for pushing trees on a home and a parked pickup truck just northeast of Pardeville (Columbia Co).

WIZ052-066

Sheboygan - Milwaukee

16	1700CST 2300CST	1	0	Excessive Heat
----	--------------------	---	---	----------------

Hot, muggy air settled over southeast Wisconsin. A new daily maximum temperature of 98 was set in Sheboygan, breaking the old record of 97 set back in 1931. Although Milwaukee recorded a maximum temperature of 92 (not a daily record), the daytime heat indices reached 110 and stayed above 80 in the evening. This led to a heat-related death of an elderly gentleman living in an apartment on the south side of Milwaukee. M91PH

Dane County

Oregon	18 1300CST 1400CST	0	0	Urban/Sml Stream Fld
--------	-----------------------	---	---	----------------------

Walworth County

2.5 NE Delavan	18 1311CST	0	0	3K Lightning
----------------	------------	---	---	--------------

Lightning struck a car on I-43, disabling vehicle completely.

Dane County

Stoughton	18 1315CST	0	0	1K Thunderstorm Wind
-----------	------------	---	---	----------------------

Walworth County

Delavan	18 1320CST	0	0	1K Thunderstorm Wind
---------	------------	---	---	----------------------

Kenosha County

Twin Lakes	18 1330CST	0	9	1M Thunderstorm Wind
------------	------------	---	---	----------------------

Nine thousand people were evacuated moments before wet-micorburst winds estimated to 80 mph blew down a stage at the Country Thunder Music Festival. The stage was lifted up and twisted by the winds. Flying debris damaged parked vehicles, and many chairs were scrambled. Interestingly, the stage was anchored with steel cable. However, the local terrain aided in funneling the powerful winds toward the stage. A boat in a nearby yard was lifted up by the same winds and the cover torn off. 9 people were injured, 3 needed to go to the hospital.

Walworth County

Pell Lake	18 1340CST	0	0	1K Thunderstorm Wind
-----------	------------	---	---	----------------------

Kenosha County

Wilmot	18 1343CST	0	0	Funnel Cloud
--------	------------	---	---	--------------

Walworth County

2.3 NW Sharon	18 1347CST	0.1	50	0 0 0.10K Tornado (F0)
---------------	------------	-----	----	------------------------

A brief tornado touchdown between Highway B and County Line road caused minor damage to a corn field, destroying a 20 by 40 foot swath of produce.

Walworth County

3 SW Lake Geneva	18 1411CST	0	0	Funnel Cloud
------------------	------------	---	---	--------------

Racine County

Waterford	18 1415CST	0	0	0.40K Thunderstorm Wind
-----------	------------	---	---	-------------------------

Racine County

Waterford	18 1422CST	0	0	Funnel Cloud
-----------	------------	---	---	--------------

Jefferson County

Waterloo	18 1430CST	0	0	50K Lightning
----------	------------	---	---	---------------

Lightning struck a home causing significant damage to the second story.

Kenosha County

Twin Lakes	18 1450CST	0	0	Funnel Cloud
------------	------------	---	---	--------------

Jefferson County

Waterloo	20 0130CST	0	0	50K Lightning
----------	------------	---	---	---------------

A bolt of lightning struck a home, starting a fire that made the upper story unlivable until repair.



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

Kenosha County

Kenosha	21	0150CST 0350CST			0	0	10K		Heavy Rain
---------	----	--------------------	--	--	---	---	-----	--	------------

Heavy rains in excess of two inches over two hours caused partial collapse of a warehouse roof

Waukesha County

Pewaukee	21	0205CST			0	0	12K		Lightning
----------	----	---------	--	--	---	---	-----	--	-----------

Lightning struck two homes . One sustained a 2' by 2' hole in the roof, followed by burned holes in the ceiling and floors and damage to personal property. The second home had a burned wall, fan burned, and T.V. blew out

Washington County

West Bend	21	0545CST			0	0	150K		Lightning
-----------	----	---------	--	--	---	---	------	--	-----------

Lightning struck a business building and ignited an attic fire. Walls needed to reinforced and much of the business equipment was ruined.

Milwaukee County

Milwaukee	21	0300CST			0	0	1M		Lightning
-----------	----	---------	--	--	---	---	----	--	-----------

Lightning caused a massive fire at a towing business on the south side of Milwaukee. The building and its contents were a total loss

Jefferson County

1 SE Cambridge	25	1824CST			0	0	2K		Thunderstorm Wind
----------------	----	---------	--	--	---	---	----	--	-------------------

Dane County

2 W Waunakee to .5 W Waunakee	25	1838CST 1841CST	1	100	0	0	130K	1K	Tornado (F1)
----------------------------------	----	--------------------	---	-----	---	---	------	----	--------------

Jefferson County

1 WSW Busseyville	25	1850CST			0	0	0.40K		Thunderstorm Wind
-------------------	----	---------	--	--	---	---	-------	--	-------------------

Dane County

De Forest	25	1905CST			0	0			Funnel Cloud
-----------	----	---------	--	--	---	---	--	--	--------------

Dane County

Madison	25	1905CST			0	0	0.50K		Thunderstorm Wind
---------	----	---------	--	--	---	---	-------	--	-------------------

Jefferson County

Lake Mills	25	1918CST			0	0			Funnel Cloud
------------	----	---------	--	--	---	---	--	--	--------------

Dane County

3 SE Waunakee to 1.8 NW Madison Truax Arpt	25	1922CST 1933CST	2.7	175	0	1	388.5K	1K	Tornado (F1)
--	----	--------------------	-----	-----	---	---	--------	----	--------------

Jefferson County

2.3 NE Concord	25	1930CST			0	0	0.50K		Thunderstorm Wind
----------------	----	---------	--	--	---	---	-------	--	-------------------

Jefferson County

.5 N Hebron	25	1945CST			0	0	0.30K		Thunderstorm Wind
-------------	----	---------	--	--	---	---	-------	--	-------------------

Dane County

Sun Prairie to Marshall	25	2000CST 2130CST			0	0			Urban/Sml Stream Fld
----------------------------	----	--------------------	--	--	---	---	--	--	----------------------

Sheboygan County

Plymouth	25	2000CST 2300CST			0	0	0.70K		Urban/Sml Stream Fld
----------	----	--------------------	--	--	---	---	-------	--	----------------------

Dane County

Marshall	25	2002CST			0	0	0.40K		Thunderstorm Wind (G52)
----------	----	---------	--	--	---	---	-------	--	-------------------------

Jefferson County

2 NE Cold Spg	25	2006CST			0	0	0.20K		Thunderstorm Wind
---------------	----	---------	--	--	---	---	-------	--	-------------------

Sheboygan County

Sheboygan	25	2200CST			0	0	0.50K		Lightning
-----------	----	---------	--	--	---	---	-------	--	-----------



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

Severe thunderstorms caused scattered tree and power line damage before becoming explosive and dropping two tornadoes in Dane County near Waunakee. Two funnel clouds were also reported. The first tornado moved east-northeast along Highway 19 just west of Waunakee, damaging 3 homes and 2 outbuildings and destroying a barn and a garage. The second, larger tornado, touched down just west of Highway 113 southeast of Waunakee, and then moved east-southeast across a housing development along and near River Road. It eventually crossed the Yahara River swamp area, hopped and skipped across the Cherokee development, and lifted east of W. Sherman Ave in the northern part of Maple Bluff. This second tornado injured 1 person, damaged 17 homes, and 3 farm buildings. One home sustained major damage, and a pole barn was destroyed. After nightfall the storm's forces took the form of damaging lightning, heavy rains and additional destructive winds. The Jefferson County fair closed early due to the storms. Six inches of rain in 3 hours caused urban street flooding in Dane County with standing water 6 to 8 inches deep in roads around Sun Prairie. Later, heavy rain measuring 1.93 inches caused street flooding in Sheboygan (Sheboygan Co) and flooded the basement of the public High School. Also in Sheboygan, lightning struck a home's TV antenna and shorted out an amplifier.

Sauk County La Valle to Reedsburg	26	1455CST 1500CST			0	0	50K		Thunderstorm Wind
Columbia County Okee to Arlington	26	1512CST 1518CST			0	0	20K	5K	Thunderstorm Wind
Sauk County Lake Delton to Merrimac	26	1515CST 1530CST			0	0	50K		Thunderstorm Wind
Columbia County Portage	26	1520CST			0	0	2K		Thunderstorm Wind
Columbia County Columbus	26	1532CST			0	0	0.40K		Thunderstorm Wind
Dane County 2 NW Waunakee to Marshall	26	1540CST			0	0	151.4K		Thunderstorm Wind (G61)
Jefferson County Lake Mills	26	1600CST			0	0	3K		Thunderstorm Wind (G52)
Dodge County Watertown	26	1615CST			0	0	0.60K		Thunderstorm Wind
Jefferson County Lake Mills	26	1615CST			0	0	10K		Lightning
Jefferson County Watertown	26	1622CST			0	0	15K		Lightning
Jefferson County Jefferson to Ft Atkinson	26	1625CST			0	0	159K		Thunderstorm Wind
Jefferson County Watertown	26	1627CST			0	0	5K		Lightning
Jefferson County 3.8 SE Sullivan to Sullivan	26	1634CST			0	0			Thunderstorm Wind (G51)
Jefferson County Palmyra	26	1645CST			0	0	0.70K		Thunderstorm Wind
Walworth County Darien	26	1645CST			0	0	0.90K		Thunderstorm Wind
Waukesha County Oconomowoc to Eagle	26	1645CST 1648CST			0	0	15K		Thunderstorm Wind
Walworth County East Troy	26	1705CST			0	0	0.60K		Thunderstorm Wind



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--	---------------------------------------	--------------------

WISCONSIN, Southeast

Racine County							
Waterford	26	1710CST			0 0	1K	Thunderstorm Wind
Walworth County							
Lake Geneva	26	1715CST			0 0	1K	Thunderstorm Wind
Milwaukee County							
Milwaukee to Shorewood	26	1718CST 1720CST			0 0	1K	Thunderstorm Wind
Kenosha County							
Slades Corners to Paddock Lake	26	1722CST 1725CST			0 0	2K	Thunderstorm Wind

Late afternoon thunderstorms reached severe limits with numerous reports of wind damage to trees and power lines. Hardest hit was Dane County where wires were down in 500 places and 15,000 customers experienced power outages. Eleven homes were damaged in Sun Prairie and a barn was levelled just north of town. Nine farm buildings were reported to be destroyed. A total of 26 homes and 2 businesses sustained minor damage from this storm event in Dane County. A gustnado was also reported in Sun Prairie. Next hardest hit was Jefferson County where a new High School in Ft. Atkinson still under construction suffered major damage to two walls, and a lightning strike started an attic fire in a nearby residential home. In Sauk County a total of 8000 customers experienced power outages with at least 3 homes and a truck and trailer damaged by trees and/or tree limbs felled by severe winds. About 4000 Columbia County residents lost electrical services due to trees and large limbs damaging power lines. Along the south shore of Lake Wisconsin in Columbia County, the powerful winds damaged 4 boats and destroyed a pier. Further east, tobacco and corn crops were damaged. Waukesha County also experienced widespread tree and power line damage as the storms pushed through with 12,000 customers experiencing power outages in western Waukesha County due to felled trees and power lines. A new pickup was damaged and 4 tents and an amusement ride was damaged in Dousman. (Waukesha Co). Hail up to 3/4 inch in diameter was reported in Lake Mills (Jefferson Co), and 0.88 inch hail was reported in western Kenosha county. Also in Kenosha County, powerful winds stripped roof shingles off of several homes near Highway 50. More lightning joined the weather havoc in Jefferson County with an attic fire in one Watertown home and damage to appliances in another.

Dane County							
Fitchburg	27	0655CST			0 0	2.1K	Thunderstorm Wind
Jefferson County							
2 E Lake Mills	27	0720CST			0 0	0.90K	Thunderstorm Wind
Jefferson County							
2.4 S Ft Atkinson	27	0735CST			0 0	0.70K	Thunderstorm Wind
Walworth County							
2 SE Allen Grove	27	0800CST			0 0	10K	Lightning

Early morning thunderstorms caused scattered tree and power line damage. A lightning bolt struck a tree just southeast of Allen Grove (Walworth Co) and tragically killed 8 dairy cows standing under the tree.



National Weather Service

Storm Data and Unusual Weather Phenomena



August 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
<u>WISCONSIN, Southeast</u>									
Sauk County La Valle	03	1635CST			0	0		4K	Hail (1.00)
Dodge County Clyman to 2 NE Lebanon	03	1645CST			0	0	20K	200K	Thunderstorm Wind
Sauk County Rock Spgs	03	1650CST			0	0		9K	Hail (1.75)
Sauk County 3 SE Loganville	03	1705CST			0	0	50K	240K	Hail (2.50)
Waukesha County Muskego	03	1725CST 1730CST			0	0	200K		Thunderstorm Wind
Dane County Blue Mounds	03	1740CST			0	0		7K	Hail (1.75)
Rock County Evansville	03	1815CST			0	0	1K		Thunderstorm Wind
Rock County Beloit	03	1830CST			0	0	1K		Thunderstorm Wind
Green Lake County Green Lake	03	1835CST			0	0		10K	Hail (3.00)
Green Lake County Markesan	03	1850CST			0	0	4K		Thunderstorm Wind (G51)
Dodge County Randolph	03	1925CST			0	0		2K	Hail (1.75)
Green Lake County 3 W Berlin to 2 SE Green Lake	03	2030CST 2045CST			0	0	1M	5M	Thunderstorm Wind
Walworth County East Troy	03	2110CST			0	0			Hail (1.00)
Racine County 2 SW Union Church	03	2115CST			0	0	500K		Thunderstorm Wind

Two rounds of severe thunderstorms struck southeast and south-central Wisconsin during the evening hours. The first round, consisting of short lines of storms moving southeast, produced scattered reports of damaging, powerful winds uprooting large trees, and large hail up to 3 inches in diameter. Northwest to northeast of Lebanon (Dodge Co.), a wet microburst blanketed the ground like snow with hail up to 1.75 inches in diameter. The accompanying powerful winds twisted and pushed over a cattle trailer, tipped over a corn crib, and shoved a hay wagon into the side of a home which damaged an exterior wall and window. In addition, a hay elevator was damaged and many local trees were uprooted. This microburst also extensively damaged or destroyed several corn fields. Another vicious storm generated damaging winds and large hail southeast of Loganville (Sauk Co.). Two homes sustained window and siding damaged by large hail up to 2.5 inches in diameter, which also damaged many cars. In addition, about 3500 acres of corn and soybean fields were extensively damaged or destroyed. Upstream in Rock Springs (Sauk Co.), measured 60 mph winds accompanied hail up to golf ball size. Also hard hit was southeast Waukesha County where a wet microburst swept across Little Muskego Lake and then raked the south shore of the lake. Destructive winds, estimated at 70 to 80 mph, uprooted many trees on the south shore, flipped over boats, damaged a peer, and tore shingles off roofs. Fallen trees with this storm damaged 4 homes, 2 businesses, and 2 vehicles. Hail up to 1.75 inches in diameter accompanied the Muskego microburst.

The second round of scattered severe storms occurred 2 to 3 hours later in the evening. Once again, damaging winds toppling large trees, and large hail were reported. The northeast 1/3 of Green Lake County was hard hit by a powerful wet macroburst that tore southeast from west of Berlin to southeast of the village of Green Lake. Winds were measured at 70 mph just south of Berlin while visibilities were down to only a few yards in torrential rains. About 105 farms were affected by either property (barns, silos, hog houses) damage, or crop damage (28,000 acres and \$5.0 million in damage). Dozens of homes were damaged by felled trees/limbs or hail up to 2 inches in diameter, and dozens of vehicles sustained tree or hail damage. The number of power poles and lines that were downed by the winds and fallen trees was so great that it took utility crews 20 hours to restore power to eastern Green Lake County customers.



National Weather Service

Storm Data and Unusual Weather Phenomena



August 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WISCONSIN, Southeast

Columbia County

Lodi	04	1215CST 1245CST			0	0			Urban/Sml Stream Fld
------	----	--------------------	--	--	---	---	--	--	----------------------

Columbia County

Lodi	04	1225CST			0	0	1K		Thunderstorm Wind
------	----	---------	--	--	---	---	----	--	-------------------

Dane County

Dane	04	1235CST			0	0	0.50K		Thunderstorm Wind (G56)
------	----	---------	--	--	---	---	-------	--	-------------------------

Dane County

Madison	04	1300CST 1330CST			0	0			Urban/Sml Stream Fld
---------	----	--------------------	--	--	---	---	--	--	----------------------

Typical summer weather events of isolated tree and power line damage affected south-central Wisconsin as early afternoon thunderstorms rumbled through the area. Heavy rains caused urban street flooding near Lodi (Columbia Co) where 5 to 6 inches of standing water was reported at the intersection of highways 113 and 60, and on the UW campus in Madison, (Dane Co) where water was reported over the curbs.

Fond Du Lac County

1 W Marytown	16	1355CST			0	0	20K		Lightning
--------------	----	---------	--	--	---	---	-----	--	-----------

Lightning struck the kitchen corner of a home... igniting a fire which extensively damaged the kitchen. Smoke damage to the rest of the house was also noted.



National Weather Service

Storm Data and Unusual Weather Phenomena



September 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
<u>WISCONSIN, Southeast</u>							
Lafayette County Shullsburg	16	1806CST			0 0	13K	Thunderstorm Wind
Lafayette County South Wayne	16	1820CST			0 0	1K	Thunderstorm Wind
Iowa County 1 W Rewey to 5 E Rewey	16	1830CST 1840CST			0 0	2K	Thunderstorm Wind
Green County 4 S Monticello	16	1840CST 1900CST			0 0	2K	Thunderstorm Wind
Sauk County Reedsburg	16	1840CST			0 0	0.20K	Thunderstorm Wind
Dane County Brooklyn	16	1845CST			0 0	0.50K	Thunderstorm Wind
Iowa County Ridgeway	16	1850CST			0 0	0.50K	Thunderstorm Wind
Fond Du Lac County Fond Du Lac	16	1852CST			0 0	3K	Lightning
Green County Browntown	16	1900CST			0 0	0.20K	Thunderstorm Wind
Marquette County 3 NW Westfield to 3 SW Neshkoro	16	1905CST 1920CST			0 0	2K	Thunderstorm Wind
Rock County Janesville	16	1920CST			0 0	1K	Thunderstorm Wind
Green Lake County Princeton	16	1930CST			0 0	1K	Thunderstorm Wind
Fond Du Lac County Fond Du Lac	16	1944CST			0 0	3K	Lightning
Waukesha County Muskego	16	2025CST			0 0	5K	Lightning
Waukesha County Muskego	16	2035CST			0 0	1K	Lightning
Waukesha County Muskego	16	2038CST			0 0	1K	Lightning
Racine County 2 E Burlington	16	2040CST			0 0	30K	Lightning
Waukesha County Muskego	16	2040CST			0 0	1K	Lightning
Racine County 3.7 S Burlington	16	2045CST			0 0	1K	Lightning

Several fast moving,, short lines of thunderstorms packing severe winds pushed east through many south-central Wisconsin counties and blew over large trees or broke large tree limbs out of trees. Some power lines were also pulled down by the broken limbs. In Shullsburg, (Lafayette Co) a 20 by 40 foot building caved in and a small shed was destroyed. A chicken house was blown down near Monticello in Green county. About 11000 customers lost power due to the downed power lines or other lightning strikes. Four different homes were struck by lightning in Muskego (Waukesha Co). One home had fire damage to its roof and gable, while the other three experienced minor fires and smoke damage. Elsewhere, lightning struck a lakeshore guest home on Browns Lake (Racine Co) east of Burlington, resulting in severe fire damage. Lightning also struck a home on the shore of Bohner's Lake south of Burlington, resulting in a minor roof fire. Lightning was also busy in the city of Fond du Lac (Fond du Lac Co) where it struck two different transformers within an hour, leaving 3722 customers without electricity.



National Weather Service

Storm Data and Unusual Weather Phenomena



September 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

Fond Du Lac County									
2 SE Oakfield	18	1830CST			0	0	0.50K		Thunderstorm Wind
Fond Du Lac County									
Fond Du Lac	18	1840CST			0	0	4K		Lightning
Fond Du Lac County									
Taycheedah	18	1905CST			0	0	0.50K		Thunderstorm Wind
Fond Du Lac County									
Fond Du Lac	18	1915CST			0	0	2K		Lightning
Sheboygan County									
Plymouth	18	1935CST			0	0	2K		Lightning
Fond Du Lac County									
Fond Du Lac	18	2000CST			0	0	1K		Lightning
Scattered thunderstorms with severe winds toppled large trees southeast of Oakfield and in Taycheedah, both in Fond du Lac county. In addition, associated lightning knocked out a power transformer in the city of Fond du Lac (Fond du Lac Co), leaving 2200 customers without electricity. Elsewhere in the city of Fond du Lac, lightning was responsible for starting a garage fire at one residence (\$4,000) and damaging appliances in another home. The thunderstorms pushed east into Sheboygan county where lightning hit and splintered a tree next to a home in Plymouth. The lightning then jumped to the home's wires and blew out a TV and a personal computer.									
Walworth County									
Elkhorn	19	1046CST			0	0	50K		Lightning
Walworth County									
Elkhorn	19	1050CST			0	1			Lightning
Green County									
Monroe	19	1100CST 1300CST			0	0			Urban/Sml Stream Fld
Walworth County									
2 NE Sharon	19	1100CST			0	0	10K		Lightning
Green County									
Monroe	19	1116CST			0	0	1K		Thunderstorm Wind
Walworth County									
Walworth	19	1140CST			0	0	40K		Lightning
Kenosha County									
Twin Lakes	19	1200CST 1500CST			0	0	0.50K		Urban/Sml Stream Fld
Rock County									
Beloit	19	1205CST			0	0	1K		Thunderstorm Wind
Rock County									
4 SE Clinton	19	1220CST			0	0	0.30K		Thunderstorm Wind
Walworth County									
1.5 N Sharon	19	1230CST			0	0	250K		Thunderstorm Wind
Kenosha County									
Kenosha	19	1245CST 1400CST			0	0	2K		Urban/Sml Stream Fld
Racine County									
Racine	19	1245CST 1400CST			0	0	1K		Urban/Sml Stream Fld
Walworth County									
2.5 NE Lake Geneva	19	1250CST			0	0	50K		Lightning



National Weather Service

Storm Data and Unusual Weather Phenomena



September 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

WISCONSIN, Southeast

Walworth County

3 N Walworth	19	1250CST			0	0	100K	Lightning
--------------	----	---------	--	--	---	---	------	-----------

Racine County

4 SE Burlington	19	1300CST			0	0	2K	Thunderstorm Wind
-----------------	----	---------	--	--	---	---	----	-------------------

Jefferson County

Lake Mills	19	1655CST	0.1	50	0	0	650K	Tornado (F0)
------------	----	---------	-----	----	---	---	------	--------------

Severe thunderstorm winds were responsible for scattered tree and power line damage. Hardest hit was Walworth county where a barn was blown off its foundation near Sharon (Walworth Co) and another out-building damaged. Several other homes around the county experienced expensive lightning damage due to fires. The 911 center in Elkhorn (Walworth Co) was temporarily disabled when lightning destroyed the communications center, forcing the use of a backup system. In addition, lightning struck and injured a woman in Elkhorn as the storms rolled through that city. Heavy rains of 3 to 4 inches caused urban street flooding on the west side of Monroe in Green county with other incidences of urban flooding reported in Racine and Kenosha counties. In the city of Racine (Racine Co), 1.14 inches fell in 30 minutes, while west of New Munster (Kenosha Co), 3.75 inches fell in 3 hours, and resulting in street flooding around New Munster to Twin Lakes (Kenosha Co). Many cars stalled in flooded low spots in both counties. Later in the afternoon a brief tornado touched down on the roof of an east side Lake Mills (Jefferson Co) factory. About 61000 square feet of the 10 acre roof was damaged.

Dane County

Mt Horeb	29	0900CST			0	0	20K	Strong Winds
----------	----	---------	--	--	---	---	-----	--------------

Jefferson County

3.8 SE Sullivan to Palmyra	29	0900CST 1400CST			0	0		Strong Winds
----------------------------	----	--------------------	--	--	---	---	--	--------------

Kenosha County

Twin Lakes	29	0900CST 1400CST			0	0	0.50K	Strong Winds
------------	----	--------------------	--	--	---	---	-------	--------------

Milwaukee County

Glendale to Oak Creek	29	0900CST 1400CST			0	0	0.60K	Strong Winds
-----------------------	----	--------------------	--	--	---	---	-------	--------------

Racine County

Racine	29	0900CST 1400CST			0	0	1K	Strong Winds
--------	----	--------------------	--	--	---	---	----	--------------

Rock County

Beloit	29	0900CST 1400CST			0	0	0.50K	Strong Winds
--------	----	--------------------	--	--	---	---	-------	--------------

Rock County

Janesville	29	0900CST 1400CST			0	1	1K	Strong Winds
------------	----	--------------------	--	--	---	---	----	--------------

Walworth County

Whitewater	29	0900CST 1400CST			0	0	0.30K	Strong Winds
------------	----	--------------------	--	--	---	---	-------	--------------

Waukesha County

Brookfield	29	0900CST 1400CST			0	0	0.30K	Strong Winds
------------	----	--------------------	--	--	---	---	-------	--------------

Waukesha County

Hartland	29	0900CST 1400CST			0	0	0.20K	Strong Winds
----------	----	--------------------	--	--	---	---	-------	--------------

Damaging southwest to west gradient winds wrecked havoc on parts of southeast and southcentral Wisconsin, downing numerous tree limbs which then pulled down power lines across several counties. Maximum winds gusts were generally in the 40 to 55 mph range, which normally wouldn't result in much damage. However, the long duration of the strong gusty winds in this episode probably played a role in weakening both small and large tree branches. At least 2500 customers lost electrical power in Milwaukee and Racine counties due to downed power lines. A man was injured in Janesville (Rock Co) when the strong winds blew over a 10 foot square metal rack on to him. He was treated and released at a local hospital. In Twin Lakes, several tents at a musical festival



National Weather Service

Storm Data and Unusual Weather Phenomena



September 1997

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

WISCONSIN, Southeast

were blown over and damaged. Visibilities were reduced to zero near Hartland (Waukesha Co) downwind of a freshly plowed field. The Kenosha ASOS (Kenosha Co) recorded a peak gust of 54 mph (47 knots), while gusts to 49 mph (43 knots) were noted just north of downtown Milwaukee (Milwaukee Co). The National Weather Service Forecast Office southeast of Sullivan (Jefferson Co) measured a wind gust at 51 mph (44 knots). Most of these peak gusts occurred in the late morning and early afternoon hours. In addition, a new record low barometric pressure for the month of September was set at Milwaukee's Mitchell International Airport. At 1056 CST, it dipped to 29.30 inches, breaking the old record of 29.31 inches set on September 29th in 1966.



National Weather Service

Storm Data and Unusual Weather Phenomena



October 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

WIZ051-063-065>066-068 Fond Du Lac - Dane - Waukesha - Milwaukee - Green

03 1500CST 0 0 Record Heat
08 1600CST

Record, or near record heat was widespread across southcentral and southeast Wisconsin from October 3rd through October 8th. Maximum temperatures peaked in the lower to mid 80s on the 3rd, 5th, 6th, 7th, and 8th. Overnight minimums on the 7th and 8th were in the lower to mid 60s... when some new record high minimums were established. The daily average temperatures for the 7th and 8th were 20 to 25 degrees above normal! During this period of unseasonably warm weather, southwest to west winds frequently gusted to 20 to 30 mph, or higher. Milwaukee had a peak gust on the 5th of 41 mph (36 kts), while Madison recorded a peak gust of 32 mph (27 kts) on the 8th.

On the 3rd... Milwaukee (Milwaukee Co) tied its old record max of 84 set in 1953, Madison (Dane Co) tied its record max of 85 set in 1976, and Fond du Lac tied its record max set in 1921. On the 5th, Milwaukee (Milwaukee Co) tied its record max of 87 set in 1922, and Fond du Lac's (Fond du Lac Co) high of 83 broke the old record of 82 set in 1947. Another secondary observation point near Fond du Lac recorded 85 on the 5th. On the 6th, recorded maximum temperatures fell short of record highs by 1 to 3 degrees.

On the 7th, Madison's high of 85 broke the old record of 84 set back in 1947, and its minimum of 63 was a new record high minimum (old one was 59 in 1984). Waukesha's (Waukesha Co) high of 86 on the 7th broke its old record of 85 set in 1993. Monroe (Green Co) also set a new record high on the 7th with an 85 degree reading. On the 8th, Madison's high of 83 tied the old record set in 1949, while its minimum of 65 tied the old record high minimum set in 1949. There is no doubt that other new record maximums and record high minimums were set across southcentral and southeast Wisconsin during the period of October 3-8, but the data wasn't available for this report.

WIZ066

Milwaukee
12 0600CST 0 0 Record Heat

Unseasonably warm weather returned to the Milwaukee metro area during the overnight hours ending on the morning of the 12th. Milwaukee's overnight low of 61 was a new record high minimum reading.

WIZ062>063

Iowa - Dane
26 1000CST 0 0 Heavy Snow
1700CST

The first significant snowfall of the season dropped up to 7 inches of heavy, wet snow across southcentral Wisconsin. This storm was one of the earliest on record for such deep accumulations in southcentral Wisconsin. The greatest accumulations were 7 inches on the top of Blue Mounds (Iowa Co) in the State Park (1716 feet MSL), and 6 inches in the communities of Mt. Horeb and Blue Mounds in western Dane county. Elsewhere, snow amounts of 3 to 5 inches were reported in Lafayette, Sauk, Green, Columbia, Dodge, Green Lake, and Fond du Lac counties. Madison set a new October 26th daily snowfall record, and an October monthly snowfall record with a 3.8 inch total. During the height of the storm, thundersnow was observed in the Madison area... indicative of the convective nature of the snow. Visibilities were reported to be 1/4 mile or less at times. The heavy, wet snow, combined with northeast winds gusting to 25 to 30 mph, resulted in scattered power outages across the southcentral counties as power lines broke under the weight of the snow. Dozens of vehicle accidents were attributed to the early season snowfall, with several people injured (indirectly related).



National Weather Service

Storm Data and Unusual Weather Phenomena



October 1997

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	



National Weather Service

Storm Data and Unusual Weather Phenomena



November 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

WISCONSIN, Southeast

WIZ070

Walworth

14 0000CST
1200CST

0 0

Heavy Snow

Localized heavy snow of 6 to 6.5 inches fell in the Lake Geneva (Walworth Co.) and other locations southeast of Lake Geneva as a low pressure system moved east across northern Illinois. Snow also fell over the entire southern third of Wisconsin with most accumulations in the 2 to 4 inch range. The western parts of Kenosha and Racine counties picked up 5.5 inches. Dozens of motor vehicle accidents were reported due to slippery roads.

WIZ066

Milwaukee

30 1130CST

1 0

Extreme Cold

An elderly woman died from environmental cold-weather hypothermia, based on medical reports. She was found dead on her driveway. Air temperatures during the morning hours were in the mid to upper 30s. One can speculate that she slipped and fell on the driveway and was unable to get up. F88OU

WIZ066

Milwaukee

30 1130CST

1 0

Extreme Cold

An elderly woman died from environmental cold-weather hypothermia based on medical reports. She was found dead on her home's driveway. Outside temperatures during the morning were in the mid to upper 30s. One can speculate that she slipped and fell on the driveway and was unable to get up. F88OU



National Weather Service

Storm Data and Unusual Weather Phenomena



December 1997

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Property Damage	Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------	---------------------------------	--------------------	-------	--------------------

WISCONSIN, Southeast

WIZ068>069

Green - Rock

24 1300CST
2100CST

0 0

Heavy Snow

Low pressure moving east across central Illinois dumped a narrow band of snow ranging from 6 to 6.5 inches deep over a small part of southcentral Wisconsin from around Brodhead (Green Co.) to Footville (Rock Co.). Most of the snow fell between 1500 and 1900 CST. Otherwise, southcentral and southeast Wisconsin received 2 to 5 inches in this event. The axis of the greatest snow accumulations extended from around Darlington (Lafayette Co.) east/northeast to Milwaukee. There were probably at least 300 motor vehicle accidents attributed to snow covered or slippery roads across southcentral and southeast Wisconsin.